WST2

Presented by WSDOT's Highways & Local Programs WST2 Center

Superpave Academy

A four-day course
Fee: $300
Time: 8:00 am to 4:30 pm
Class Size: 12
Locations: Materials Labs in Wenatchee and Vancouver.

Instructor

Tim Moomaw, WSDOT North Central Region Trainer and Mike Dellinger, WSDOT South Central Region Trainer.

Target Audience

The academy is designed for the transportation technician or engineer who is interested in attaining knowledge of Superpave mix design, testing of hot mix asphalt and aggregate properties.

Course Description

This course will provide the necessary knowledge to become a qualified tester in the required test methods.

Course Objectives

Participants will acquire knowledge and skills in the following areas:

1) Terms and acronyms associated with Superpave volumetric properties
2) Superpave mix design process and aggregate stockpile blending ratio
3) Plotting and interpretation of the FHWA 0.45 power gradation chart
4) Introduction to test methods for acceptance of Hot Mix Asphalt
5) Demonstration and hands on of Superpave gyratory compactor
6) Standardization of forms for use in volumetric calculations
7) Evaluation of volumetric properties

Agenda

Day 1 12:30pm – 4:30 pm
Introduction
Expectations of academy and participants
Glossary and acronyms used with Superpave
Hot Mix Asphalt specifications for volumetrics
Superpave mix design process

Day 2 8:00am – 4:30 pm
Review of previous day's learning
Superpave volumetric design for Hot Mix Asphalt
- Design aggregate structure for trial blends
- Estimate a trial binder content

Superpave test methods for WSDOT specifications

Washington State Department of Transportation

Lunch
Prepare trial blends (hands-on in lab)

- Determine bulk specific gravity of aggregates by ASTM D6752
- Combine aggregate and binder
- Perform AASHTO T-312 using Pine Gyratory Compactor
- Perform AASHTO T-209

Calculation exercise of volumetric properties

Day 3 8:00am – 4:30pm
Performance of AASHTO T-166 (hands-on in lab)
Calculate volumetric properties of trial blend
Lunch
Aggregate tests (hands-on in lab)

- Performance of AASHTO T-304
- Performance of ASTM D4791
- Performance of WAQTC TM 1
- Record and document results on electronic form

Review test methods used for acceptance of HMA for volumetrics

Day 4 8:00am – 4:30pm
Perform acceptance testing on prepared HMA samples (hands-on in lab)

- Reduce sample to proper testing sizes (WSDOT TM 712)
- Determination of asphalt content (AASHTO T-308)
- Determine moisture content of bituminous mixture (WAQTC TM 6)
- Determination of maximum specific gravity of the mix (AASHTO T-209)
- Prepare Superpave gyratory specimen (AASHTO T-312)
- Determine the bulk specific gravity of the compacted mixture (AASHTO T 166)
- Determine aggregate gradations (AASHTO T 27/11)
- Calculate volumetric properties of the sample
- Record and document results on electronic form

For further information contact Laurel Gray, Training Program Coordinator, at (360) 705-7355 or GrayL@wsdot.wa.gov